

Application Serial No. 10/531,218
Reply to Office Action of March 21, 2008

PATENT
Docket: CU-4148

REMARKS/ARGUMENTS

In the Office Action dated March 21, 2008, the Examiner states that Claims 1, 3-5 are pending and Claims 1, 3-5 are rejected. By the present Amendment, Applicant amends the claims. As only Claims 1 and 4 are currently pending in this application, Applicant refers only to claims 1 and 4 herebelow.

In paragraph 2 of the Action, the Examiner rejects Claims 1 and 3-5 as obvious under 35 U.S.C. 103(a) in view of reference 1 (Sucech; U.S. 5,643,510) and optionally in view of reference 2 (SU 1252321), reference 3 (JP10-330174) or reference 4 (GB 2032413).

In response, Applicant respectfully submits that pending Claims 1 and 4 are not obvious in view of any of the cited documents. In particular, Applicant submits that the combination of the features of "the agent for increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances"; "the agent for decreasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents" and "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as recited in amended Claim 1 would not be obvious to one skilled in the art in view of reference 1 and references 2, 3, or 4.

On pages 3-7 of the Action, the Examiner indicates in part that one skilled in the art would find it obvious to obtain a foaming agent by preliminarily adding a pore size adjusting agent, and specifically indicates that reference 1 suggests the feature "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight to 0.005 parts by weight per 100 parts by weight of the calcined gypsum".

However, "Foam Weight 7 lb/cuft" as disclosed in reference 1, column 4, does not correspond to a quantity with respect to "the pore size adjusting agent" as recited in pending Claim 1. Furthermore, the unit (lb/cuft) of "Foam Weight 7 lb/cuft" as disclosed in reference 1, column 4, is quite different from the unit (lb/MSF) of "Stucco 1225 lb/MSF" as also disclosed in reference 1, column 4, particularly in terms of the

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Docket: CU-4148

dimensions of "cuft" (cubic feet) and "MSF" (million square feet). One skilled in the art would not derive the feature "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 by weight of the calcined gypsum" as recited in pending Claim 1 from "Foam Weight 7 lb/cuft" and "Stucco 1225 lb/MSF" as disclosed in reference 1. In addition, no other suggestion is found in reference 1 for attaining the Claim 1 feature: "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum".

Moreover, no suggestion is found in references 2 and 4 for attaining the Claim 1 feature "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum".

Thus, the feature "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as recited in pending Claim 1 is not disclosed or suggested in any of references 1, 2 and 4.

In the Action, the Examiner also indicates that the reference 3 disclosure of "preferably 0.001-0.01 part by weight for an antifoaming agent" "per 100 parts by weight of calcined gypsum" in paragraph [0009] overlaps "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as recited in pending Claim 1.

However, reference 3 also discloses that "a generally called antifoaming agent, that is, higher fatty acid derivatives and organic compounds similar thereto, alcohols, silicone oils, paraffins, and the like" in paragraph [0008]. That is, reference 3 teaches "preferably 0.001-0.01 part by weight" "per 100 parts by weight of calcined gypsum" "for an antifoaming agent", that is, "higher fatty acid derivatives and organic compounds similar thereto, alcohols, silicone oils, paraffins, and the like".

Herein, "the agent for increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble acidic substances, strong acids, and water soluble strong alkaline substances" and "the agent for decreasing sizes of the foams in the foamed gypsum slurry contains at least one substance

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consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents" as recited in pending Claim 1 do not correspond to any of "higher fatty acid derivatives and organic compounds similar thereto, alcohols, silicone oils, paraffins, and the like" as disclosed in reference 3, and accordingly, do not correspond to "an antifoaming agent" as disclosed in reference 3.

Furthermore, the Examiner indicates that reference 3 also discloses "a foam adjusting agent meaning a compound having an antifoaming effect or a foam-breaking effect" and "generally, 0.5 parts by weight or less for an antifoaming agent per 100 parts by weight of calcined gypsum, and 1.0 part by weight or less for a foam breaking agent, and preferably 0.001-0.01 parts by weight for an antifoaming agent and preferably 0.1-0.5 parts by weight for a foam-breaking agent" in paragraph [0009], which seems to suggest that "the amount of a used foam adjusting agent" as disclosed in [0009] should vary with the kind of "a foam adjusting agent", that is, "an antifoaming agent" or "a foam-breaking agent".

Therefore, it should not be obvious even for a person skilled in the art to apply "preferably 0.001-0.01 parts by weight" "per 100 parts by weight of calcined gypsum" "for an antifoaming agent" as disclosed in reference 3 to "the agent for increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances" or "the agent for decreasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents" as recited in our pending Claim 1 which does not correspond to "an antifoaming agent" as disclosed in reference 3.

Accordingly, the combination of the features of "the agent for increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances" or "the agent for decreasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type

Application Serial No. 10/531,218
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PATENT
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surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents" and "a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as recited in pending Claim 1 is not obvious in view of reference 3.

Additionally, "0.01 - 0.03 parts by weight of foaming agent . . . per 100 parts gypsum" as written in the Office Action, page 7, is considerably different from a "content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum" as recited in pending Claim 1.

Consequently, we believe that the present invention according to pending Claims 1 and 4 are not disclosed or suggested in cited documents 1-4 and accordingly are not obvious in view of cited documents 1-4

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Date


Attorney for Applicant
Valerie Neymeyer-Tynkov
c/o Ladas & Parry LLP
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300
Reg. No. 46956